



## USDA ARS National Animal Germplasm Program

### Impact Shipper Protocol

#### Contents of Impact Shipper (Photo 1):

- **CRITICAL:** Cooling packs must be stored upon arrival at:
  - 5 °C (41 °F) for shipping semen from bulls, bucks, rams, and for tissue
  - 15 °C (59 °F) for boar semen
- Media (represented as a packet of AndroPro Plus in this photo)
- Two zip lock bags containing 15 or 50ml Falcon tubes
- UPS or FedEx shipping label- will be in sleeve behind incoming address label

#### Sample acquisition:

Collect and cool the samples as described in the protocol specific to the germplasm type.

#### Packing the Impact Shipper:

- Dry off the tubes and place them in the Zip Lock bags provided in the same position in which they were shipped (Photo 1)
- Place bags of tubes into the bottom of the Impact Shipper (Photo 2)
- Place the cooling packs that were cooled to the temperature appropriate for the type of germplasm on the sample tube bags (Photo 3)
- Close the insulation lid over the samples and cooling packs ensuring that the insulation lid lays flat and the contents are completely covered with the insulation (Photo 4).
  - **In order to maintain the proper temperature of the samples, it is imperative that no dead space is present in the Impact Shipper. Do not include unused tubes or packing materials with the samples; instead fill empty space with cooling packs equilibrated to the same temperature as the germplasm. Excess cooling packs may be placed on top of the insulation within the box (Photo 4).**
- Seal the Impact Shipper box with packaging tape and ensure that the shipping label addressed to NAGP is visible.

Photo 1

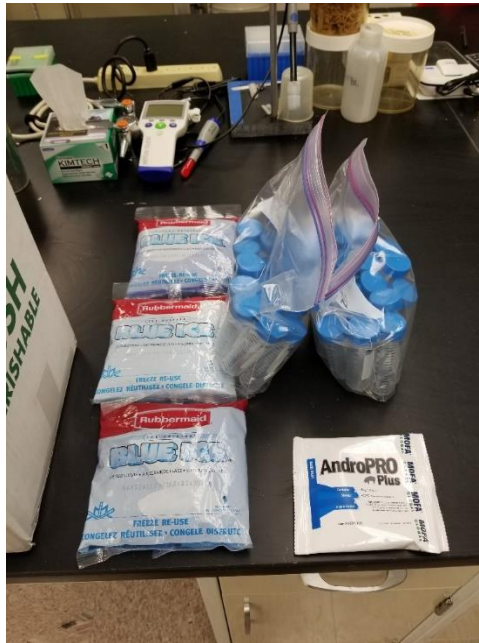


Photo 2



Photo 3



Photo 4



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